

**THE SYSTEM OF NUCLEAR MATERIAL CONTROL OF KAZAKHSTAN**

XA0200130

G.ZH. YELIGBAYEVA

Kazakhstan Atomic Energy Committee, Almaty, Kazakhstan

The State system for nuclear material control consists of three integral components. The efficiency of each is to guarantee the non-proliferation regime in Kazakhstan. The components are the following: accounting, export and import control and physical protection of nuclear materials.

First, the implementation of the goals of accounting and control bring into force, by the organization of the system for accounting and measurement of nuclear materials to determine present quantity. Organizing the accounting for nuclear material at facilities will ensure the efficiency of accountancy and reporting information. This defines the effectiveness of the state system for the accounting for the Kazakhstan's nuclear materials. Currently, Kazakhstan's nuclear material is fully safeguarded in designated secure locations. Kazakhstan has a nuclear power plant, 4 research reactors and a fuel fabrication plant.

The governmental information system for nuclear materials control consist of two level:

Governmental level – KAEA collects reports from facilities and prepares the reports for International Atomic Energy Agency, keeping of supporting documents and other necessary information, a data base of export and import, a data base of nuclear material inventory.

Facility level - registration and processing information from key measurement points, formation the facility's nuclear materials accounting database. All facilities have computerized systems.

Currently, all facilities are safeguarded under IAEA safeguarding standards, through IAEA inspections. Annually, IAEA verifies all nuclear materials at all Kazakhstan nuclear facilities.

The government reporting system discloses the existence of all nuclear material and its transfer intended for interaction through the export control system and the nuclear control accounting system. Nuclear material export is regulated by the regulations of the Nuclear Export Control Law. The standard operating procedure is the primary means for regulating exports and determines the mechanism for the realization of export control policy. KAEC is the main government organization for nuclear export control. KAEC's provision determines the functions, orders, and procedures to coordinate nuclear material export and import. KEAC's database on nuclear material exports and imports aids in the tracking of the transfer of nuclear materials into, out of, and through Kazakhstan. The consolidated analysis of the nuclear material accountancy and nuclear material transfer increases the level of the nuclear control system.

The system of physical protection, which prevents the unauthorized diversion of nuclear materials from facilities, is another component of the state control system. The main goal of this system is the organizational activity to block the ability to steal nuclear material or to sabotage a facility through nuclear material dispersal. Now, physical protection of nuclear materials and facilities is implemented by different government organizations. They activate their physical protection programs according to their individual departmental regulations. From 1994-1998 with the financial and technical support of donor-countries, the Committee had been able to support the systems modernization of nuclear facilities.

In 2000, Kazakhstan state boards had agreed upon an Additional Protocol to the Agreement between Kazakhstan and IAEA, for the application of safeguards. When the Additional Protocol procedures will be finished and signed, then mining facilities will also be under safeguards. The National Control List, similar to the European Control List, was also validated in 2000. Now, new rules considering the recommendation of the Nuclear Supplier Group for the export and import of nuclear materials, technologies, equipment, dual-use equipment, materials, and technologies is now being agreed upon by the Kazakhstan state board.

Thus we have the basics for a nuclear control system in Kazakhstan and now we carrying out the development of this system.